Amendment to the Claims:

This listing of claims will replace all prior versions, or listings, of claims in this application.

Listing of Claims

Claims 1-23: Cancelled

Claim 24 (Previously Presented): A method for producing a quartz epitaxial thin film on a substrate, said method comprising:

providing a substrate;

forming a buffer layer of GaN or ZnO on the substrate;

vaporizing, under atmospheric pressure, a source of silicon selected from the group consisting of tetramethoxysilane, tetraethoxysilane, tetrapropoxysilane and tetrabutoxysilane;

depositing quartz on said buffer layer using a catalyst, which is hydrogen chloride, to promote a reaction of the silicon source with oxygen, thereby forming said quartz epitaxial thin film.

Claim 25: Cancelled.

Claim 26 (Previously Presented): The method of Claim 24, comprising producing the quartz epitaxial thin film on the substrate or the buffer layer at a rate of about 3 μm per hour.

Claim 27 (Previously Presented): The method of Claim 24, wherein the quartz epitaxial thin film consists essentially of quartz.

Claim 28 (Previously Presented): The method of Claim 24, wherein the substrate is sapphire, silicon or GaAs.

Claim 29 (Previously Presented): The method of Claim 24, wherein the source of silicon is heated to a temperature of 50° C to 120° C.

Claim 30 (Previously Presented): The method of Claim 24, wherein a temperature of a growth area, for depositing the quartz on the substrate, ranges from 550° C to 850° C.

Claim 31 (Previously Presented): The method of Claim 24, wherein said quartz epitaxial thin film is characterized by an X-ray diffraction profile exhibiting a diffraction peak at $2\Theta=50.6^{\circ}$.

Claim 32 (Previously Presented): The method of Claim 24, wherein an inert gas is employed as a carrier gas to introduce said source of silicon into a growth area.

Claim 33 (Previously Presented): The method of Claim 24, wherein the oxygen partial pressure is 0.1 to 0.3 atm, in the growth area.

Claim 34-41: Cancelled.